

**AMENDMENTS TO THE ABSTRACT:**

Please amend the abstract as follows:

The present invention relates to measurement of conductivity, ~~particularly to the noncontact measurement of the conductivity using a microwave.~~ A microwave oscillated by an oscillator  $[(110)]$  using a Gunn diode is applied through an isolator  $[(120)]$ , a circulator  $[(130)]$ , and a horn antenna  $[(140)]$  to a silicon wafer  $[(150)]$ . The isolator  $[(120)]$  is used for reducing the standing wave influencing the operation of the instrument. The reflected wave is received by the same horn antenna  $[(140)]$ , detected by a detector  $[(160)]$  connected to the circulator  $[(130)]$ , and outputted in the form of a voltage. The detector  $[(160)]$  produces an output voltage proportional to the square of the amplitude of an electric field. Since the amplitude of the reflected wave from a silicon wafer  $[(150)]$  is proportional to the absolute value of the reflectance, the output voltage is also proportional to the square of the absolute value of the reflectance. The reflectance is in a certain relationship with the conductivity, the conductivity of the silicon wafer  $[(150)]$  can be determined.

HAYES SOLOWAY P.C.  
3450 E. SUNRISE DRIVE,  
SUITE 140  
TUCSON, AZ 85718  
TEL. 520.882.7623  
FAX. 520.882.7643

175 CANAL STREET  
MANCHESTER, NH 03101  
TEL. 603.668.1400  
FAX. 603.668.8567